

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method, ~~in stereo widening or corresponding spatial signal processing of stereo format signals to become suitable for headphone listening,~~
~~which method comprisesing: at least the steps of~~
_____ forming left and right channel signal paths in ~~order to~~ stereophonic processing of left and right channel input signals into left and right channel output signals suitable for stereophonic headphone listening, and forming at least one delay introducing a cross-talk signal path between the left and right channel signal paths, wherein the method further comprises ~~the step of~~
_____ forming a separate monophonic signal path in order to equalize a frequency spectrum of a monophonic component of the left and right channel output signals by at least extracting from the left and right channel input signals an at least substantially monophonic signal component contained in said signals,
_____ processing the monophonic signal component to obtain a processed monophonic signal component, and
_____ combining said processed monophonic signal component with at least one of the left and the right channel output signals.
2. (original) The method according to claim 1, wherein the at least substantially monophonic signal component is extracted from the left and right input signals based on a momentary average value $(L+R)/2$ of said signals.
3. (original) The method according to claim 1, wherein the at least substantially monophonic signal component is extracted from the left and right channel input signals based on similarity between said signals.
4. (original) The method according to claim 1, wherein the processing of the

monophonic signal component includes processing of a frequency spectrum of said monophonic signal component.

5. (original) The method according to claim 4, wherein the processing of the frequency spectrum of said monophonic signal component is performed substantially within a frequency range ranging from 500 Hz to 2 kHz.

6. (original) The method according to claim 1, wherein the processing of the monophonic signal component includes adjustment of the gain of said monophonic signal component.

7. (original) The method according to claim 6, wherein the adjustment of the gain is performed in a time varying manner.

8. (original) The method according to claim 1, wherein the processing of the monophonic signal component includes adding a delay to said monophonic signal component.

9. (currently amended) ~~A signal processing device, for stereo widening or corresponding spatial signal processing of stereo format signals to become suitable for headphone listening, the device comprising:~~

_____ at least left and right channel signal paths in order to process the left and right channel input signals into left and right channel output signals suitable for stereophonic headphone listening, and at least one delay introducing a cross-talk signal path between the left and right channel signal paths, wherein the device further comprises

_____ a separate monophonic signal path in order to equalize a frequency spectrum of a monophonic component of the left and right channel output signals, said monophonic signal path comprising

_____ a signal processor at least means for extracting from the left and right channel input signals an at least substantially monophonic signal component contained in said signals, ~~means~~and for processing the monophonic signal component to obtain a processed monophonic signal component, and ~~means~~ for combining said processed monophonic signal component with at least one of the left or the right channel output signals.

10. (currently amended) The device according to claim 9, wherein the ~~means for~~ extracting the at least substantially monophonic signal component from the left and right channel input signals ~~are~~is based on determining a momentary average value $(L+R)/2$ of said signals.

11. (currently amended) The device according to claim 9, wherein the ~~means for~~ extracting the at least substantially monophonic signal component from the left and right channel input signals ~~are~~is based on similarity between said signals.

12. (currently amended) The device according to claim 9, wherein the ~~means for~~ processing of the monophonic signal component includes ~~means for~~ processing of a frequency spectrum of said monophonic signal component.

13. (currently amended) The device according to claim 12, wherein ~~the means for~~ said signal processor processing the frequency spectrum of said signal component comprises a digital Infinite Impulse Response-~~(IR)~~ or a Finite Impulse Response ~~(FIR)~~ filter structure for said processing of the frequency spectrum of said monophonic signal component.

14. (original) The device according to claim 12, wherein the processing of the frequency spectrum of said monophonic signal component is performed substantially within a frequency range ranging from 500 Hz to 2 kHz.

15. (currently amended) The device according to claim 9, wherein the ~~means for~~ processing the monophonic signal component includes ~~means for adjusting the gain~~ of said monophonic signal component.

16. (currently amended) The device according to claim 15, wherein the ~~means for~~ signal processor is configured to adjusting the gain ~~are arranged to perform the~~ adjustment in a time varying manner.

17. (currently amended) The device according to claim 9, wherein the signal processor is configured to ~~means for processing the monophonic signal component~~ include means for adding a delay to said monophonic signal component.

18. (original) The device according to claim 9, wherein the device is a digital signal processing device.

19. (currently amended) A computer program stored on a computer readable medium, ~~in stereo widening or corresponding spatial signal processing of stereo format signals to process said signals to become suitable for headphone listening,~~ said program comprising machine executable steps arranged ~~configured~~ to carry out at least the steps of a method comprising:

_____ forming left and right channel signal paths in order to process left and right channel input signals into left and right channel output signals suitable for stereophonic headphone listening, _____ forming at least one delay introducing a cross-talk signal path between the left and right channel signal paths, and further

_____ forming a separate monophonic signal path in order to equalize a frequency spectrum of a monophonic component of the left and right channel output signals by at least extracting from the left and right channel input signals an at least substantially monophonic signal component contained in said signals, ~~and~~

_____ processing the monophonic signal component to obtain a processed monophonic signal component, and

_____ further combining said processed monophonic signal component with at least one of the left and the right channel output signals.

20. (currently amended) A computer program according to claim 19, ~~wherein it is arranged~~configured to be for execution in a digital signal processor.

21. (currently amended) A mobile appliance, ~~with audio capabilities comprising at least signal processing means for stereo widening or corresponding spatial signal processing of stereo format signals to become suitable for headphone listening, said signal processing means comprising:~~

_____ at least left and right channel signal paths in order to process the left and right channel input signals into left and right channel output signals suitable for stereophonic headphone listening, and at least one delay introducing a cross-talk signal path between the left and right channel signal paths, ~~wherein the signal processing means further comprise~~

_____ a separate monophonic signal path in order to equalize a frequency spectrum of a monophonic component of the left and right channel output signals, said monophonic signal path ~~comprising at least means~~ for extracting from the left and right channel input signals an at least substantially monophonic signal component contained in said signals, ~~means for~~ processing the monophonic signal component to obtain a processed monophonic signal component, and ~~means for~~ combining said processed monophonic signal component with at least one of the left or the right channel output signals.

22. (currently amended) A mobile appliance according to claim 21, ~~wherein it is comprising~~ a portable digital player or a digital mobile telecommunication device.

23. (new) A device, comprising:

at least left and right channel signal paths in order to process the left and right channel input signals into left and right channel output signals suitable for

stereophonic headphone listening, and at least one delay introducing a cross-talk signal path between the left and right channel signal paths, wherein the device further comprises

a separate monophonic signal path in order to equalize a frequency spectrum of a monophonic component of the left and right channel output signals, said monophonic signal path comprising at least means for extracting from the left and right channel input signals an at least substantially monophonic signal component contained in said signals, means for processing the monophonic signal component to obtain a processed monophonic signal component, and means for combining said processed monophonic signal component with at least one of the left or the right channel output signals.

24. (new) The device according to claim 23, wherein the means for processing the monophonic signal component include means for processing of a frequency spectrum of said monophonic signal component.